



DewPro[®] MMY31

Dew point transmitter

The DewPro MMY31 measures dew point or ppmv in gases. It is a cost-effective, loop-powered dew point transmitter designed for “in-line” installation where trace moisture measurement is required. The planar aluminum oxide sensor provides excellent corrosion resistance, longer calibration stability, quick response times, and an exceptionally low temperature coefficient.

Technical Specifications

The DewPro MMY31 mounts directly in-line in your process gas, where a bypass installation is not appropriate. It is easily installed via a variety of adjustable insertion length compression fittings. The optional integrated display with user interface provides full programming and diagnostic capability. Applications include glove boxes, environmental chambers, test chambers, and other locations where direct insertion is required.

Features

- Loop-powered, 4 to 20 mA transmitter
- Fast response planar aluminum oxide sensor
- Trouble-free indoor or outdoor mounting
- Field validation with the MMY245 moisture analyzer
- Microcontroller electronics in Type 4X/IP67 enclosure

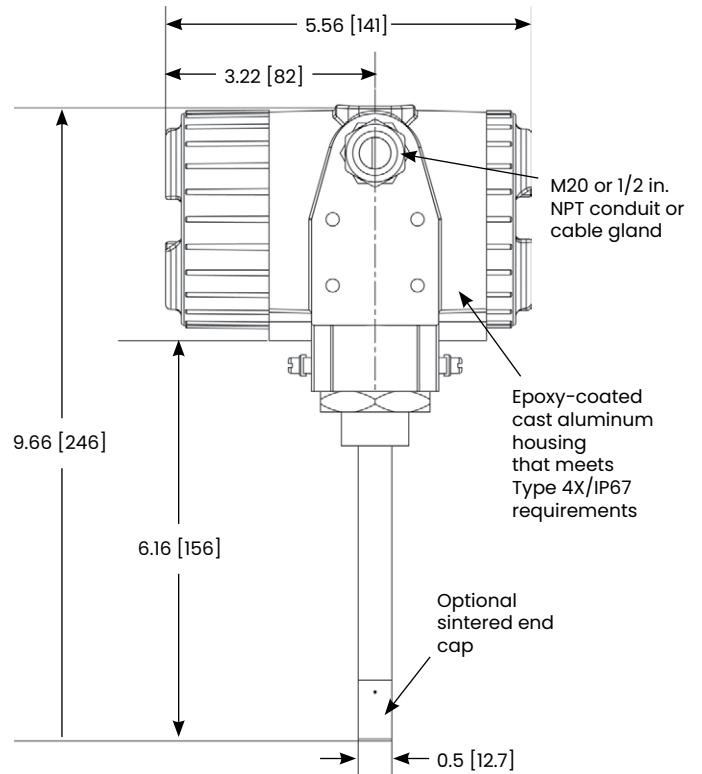
Options

- Integrated display with user interface
- FM approved intrinsically safe/explosion-proof, Class I,II,III, Division 1 and 2, Groups A,B,C,D,E,F&G hazardous (classified) locations
- English or metric fittings
- External display available with loop-power supply and alarm contacts

Sensing element	Planar aluminum oxide sensor
Measurement range	-130°F to 50°F (-90°C to 10°C) dew point temperature; 0 to 10 ppmv, 0 to 1000 ppmv (fully adjustable with integral display)
Recommended recalibration cycle	12 months, depending on the application
Calibration accuracy	±3.6°F (±2°C) dew point at 77°F (25°C)
Maximum sensor relative humidity	50% at dew point temperatures >32°F (>0°C)
Operating and storage temperature range	• Process: -40°F to 122°F (-40°C to 50°C) • Electronics: -40°F to 185°F (-40°C to 85°C)
Element filter	100 micron, sintered stainless steel
Standard operating pressure	0 to 1750 psig (0 to 120 bar, 12 MPa)
Helium leak-rate	<10 ⁻⁶ mbar/s
Output	4 to 20 mA loop-powered, 16 µA resolution
Electronics	Microcontroller operated
Optional display	Four-digit numeric display with bar graph and matrix position indication; four user interface keys for unit selections, output adjustments and ranging
Power supply	24 VDC nominal, 12 to 30 VDC
Protection	Type 4X/IP67
Weight	3.3 lb (1.5 kg)
Probe tube	316 stainless steel, 1/2 in. (12.7 mm) diameter, insertion length 2 in. (50 mm) to 3.5 in. (90 mm)
Typical probe mounting	1/2 in NPT-M, 3/4 in NPT-M, 3/4-16 O-ring, G 1/2 compression fittings. Others available, consult factory.
European compliance	• Complies with EMC Directive 2014/30/EU. • Sound Engineering Practice under PED 2014/68/EU Article 4(3) (DN <25).

Optional certifications/ approvals

Code	Description
A	FM Intrinsically Safe, Class I, II and III, Division 1, Gas/dust groups A through G; US certification only, Canada excluded
B	FM Explosion Proof, Class I, II and III, Division 1, Gas/dust groups A through D; US certification only, Canada excluded
C	FM Non-Incendive, Class I, Division 2, Groups A–D; Class II and III, Division 1, Groups E, F, G; US certification only, Canada excluded
F	EU Only Zone 2 (self-declare)
S	Special on request



DewPro MMY31 with display option